

Sequence Listing

<110> Desnoyers, Luc

Eaton, Dan L.

Goddard, Audrey

Godowski, Paul J.

Gurney, Austin L.

Pan, James

Stewart, Timothy A.

Watanabe, Colin K.

Wood, William I.

Zhang, Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME

<130> P3030R1C9

<150> 60/085579

<151> 1998-05-15

<150> 60/112514

<151> 1998-12-15

<150> 60/113300

<151> 1998-12-22

<150> 60/113430

<151> 1998-12-23

<150> 60/113605

<151> 1998-12-23

<150> 60/113621

<151> 1998-12-23

<150> 60/114140

<151> 1998-12-23

<150> 60/115552

<151> 1999-01-12

<150> 60/116843

<151> 1999-01-22

<151> 1999-04-05

<150> 60/129122
<151> 1999-04-13

<150> 60/130359
<151> 1999-04-21

<150> 60/131270
<151> 1999-04-27

<150> 60/131272
<151> 1999-04-27

<150> 60/131291
<151> 1999-04-27

<150> 60/132371
<151> 1999-05-04

<150> 60/132379
<151> 1999-05-04

<150> 60/132383
<151> 1999-05-04

<150> 60/135750
<151> 1999-05-25

<150> 60/138166
<151> 1999-06-08

<150> 60/144791
<151> 1999-07-20

<150> 60/146970
<151> 1999-08-03

<150> 60/162506
<151> 1999-10-29

<150> 09/311832
<151> 1999-05-14

<150> 09/380142
<151> 1999-08-25

<150> 09/644848
<151> 2000-08-22

<150> 09/747259
<151> 2000-12-20

<150> 09/816744
<151> 2001-03-22

<150> 09/854208
<151> 2001-05-10

<150> 09/854280
<151> 2001-05-10

<150> 09/874503
<151> 2001-06-05

<150> 09/869599
<151> 2001-06-29

<150> 09/908,827
<151> 2001-07-18

<150> PCT/US99/10733
<151> 1999-05-14

<150> PCT/US99/28551
<151> 1999-12-02

<150> PCT/US99/30720
<151> 1999-12-22

<150> PCT/US00/05601
<151> 2000-03-01

<150> PCT/US00/05841
<151> 2000-03-02

<150> PCT/US00/14042
<151> 2000-05-22

<150> PCT/US00/15264
<151> 2000-06-02

<150> PCT/US00/23522
<151> 2000-08-23

<150> PCT/US00/23328
<151> 2000-08-24

<150> PCT/US00/32678
<151> 2000-12-01

<150> PCT/US00/34956
<151> 2000-12-20

<150> PCT/US01/06520
<151> 2001-02-28

<150> PCT/US01/17800
<151> 2001-06-01

<150> PCT/US01/19692
<151> 2001-06-20

<150> PCT/US01/21066
<151> 2001-06-29

<150> PCT/US01/21735

<151> 2001-07-09

<160> 80

<210> 1

<211> 1712

<212> DNA

<213> Homo Sapien

<400> 1

ggcatctgcc cgaggagacc acgctcctgg agctctgctg tcttctcagg 50
gagactctga ggctctgttg agaatcatgc tttggaggca gctcatctat 100
tggcaactgc tggctttggt tttcctccct ttttgctgt gtcaagatga 150
atacatggag tctccacaaa ccggaggact acccccagac tgcagtaagt 200
gttgtcatgg agactacagc tttcgaggct accaaggccc ccctgggcca 250
ccgggccctc ctggcattcc aggaaacat ggaaacaatg gcaacaatgg 300
agccactggt catgaaggag ccaaagggtga gaaggcgac aaagggtgacc 350
tggggcctcg aggggagcgg gggcagcatg gcccacaaagg agagaagggc 400
taccgggga ttccaccaga acttcagatt gcattcatgg cttctctggc 450
aaccacttc agcaatcaga acagtgggat tatcttcagc agtggtgaga 500
ccaacattgg aaacttcttt gatgtcatga ctggtagatt tggggcccca 550
gtatcaggtg tgtatttctt caccttcagc atgatgaagc atgaggatgt 600
tgaggaagtg tatgtgtacc ttatgcacaa tggcaacaca gtcttcagca 650
tgtacagcta tgaaatgaag ggcaaatacag atacatccag caatcatgct 700
gtgctgaagc tagccaaagg ggatgagggt tggctgcgaa tgggcaatgg 750
cgctctccat ggggaccacc aacgcttctc cacctttgca ggattcctgc 800
tctttgaaac taagtaaata tatgactaga atagctccac tttggggaag 850
acttgtagct gagctgattt gttacgatct gaggaacatt aaagttgagg 900
gttttacatt gctgtattca aaaaattatt gggtgcaatg ttgttcacgc 950
tacagggtaca ccaataatgt tggacaattc aggggctcag aagaatcaac 1000
cacaaaatag tcttctcaga tgaccttgac taatatactc agcatcttta 1050
tcactctttc cttggcacct aaaagataat tctcctctga cgcaggttgg 1100
aaataatttt ttctatcaca gaagtcattt gcaaagaatt ttgactactc 1150
tgcttttaat ttaataccag ttttcaggaa ccctgaagt tttaagttca 1200

ttattcttta taacatttga gagaatcgga tgtagtgata tgacagggct 1250
 ggggcaagaa caggggcact agctgcctta ttagctaatt tagtgccctc 1300
 cgtgttcagc ttagcctttg accctttcct tttgatccac aaaatacatt 1350
 aaaactctga attcacatac aatgctatth taaagtcaat agatttttagc 1400
 tataaagtgc ttgaccagta atgtgggtgt aattttgtgt atgttcccc 1450
 acatcgcccc caacttcgga tgtgggggtca ggaggttgag gttcactatt 1500
 aacaaatgtc ataaatatct catagaggta cagtgcctaat agatattcaa 1550
 atgttgcattg ttgaccagag ggattttata tctgaagaac atacactatt 1600
 aataaatacc ttagagaaag attttgacct ggcttttagat aaaactgtgg 1650
 caagaaaaat gtaatgagca atatatggaa ataaacacac ctttggttaa 1700
 gataaaaaaa aa 1712

<210> 2
 <211> 246
 <212> PRT
 <213> Homo Sapien

<400> 2
 Met Leu Trp Arg Gln Leu Ile Tyr Trp Gln Leu Leu Ala Leu Phe
 1 5 10 15
 Phe Leu Pro Phe Cys Leu Cys Gln Asp Glu Tyr Met Glu Ser Pro
 20 25 30
 Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly
 35 40 45
 Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly
 50 55 60
 Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly
 65 70 75
 Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly
 80 85 90
 Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly
 95 100 105
 Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe
 110 115 120
 Met Ala Ser Leu Ala Thr His Phe Ser Asn Gln Asn Ser Gly Ile
 125 130 135
 Ile Phe Ser Ser Val Glu Thr Asn Ile Gly Asn Phe Phe Asp Val
 140 145 150

Met	Thr	Gly	Arg	Phe	Gly	Ala	Pro	Val	Ser	Gly	Val	Tyr	Phe	Phe
				155					160					165
Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
				170					175					180
Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
				185					190					195
Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200					205					210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215					220					225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
				230					235					240
Leu	Leu	Phe	Glu	Thr	Lys									
				245										

<210> 3
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 3
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 4
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 4
 caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 5
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 5
 gcaacaatgg agccactggt catg 24

<210> 6
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 6
gcaaaggtgg agaagcgttg gtgg 24

<210> 7
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 7
cccacttcag caatcagaac agtgggatta tctttcagca gtgtttgaga 50
cc 52

<210> 8
<211> 1579
<212> DNA
<213> Homo Sapien

<400> 8
gagagaatag ctacagattc tccatcctca gtctttgcaa ggcgacagct 50
gtgccagccg ggctctggca ggctcctggc agcatggcag tgaagcttgg 100
gaccctcctg ctggcccttg ccctgggcct ggcccagcca gcctctgccc 150
gccggaagct gctggtgttt ctgctggatg gttttcgctc agactacatc 200
agtgatgagg cgctggagtc attgcctggc ttcaaagaga ttgtgagcag 250
gggagtaaaa gtggattact tgactccaga cttccctagt ctctcgtatc 300
ccaattatta taccctaattg actggccgcc attgtgaagt ccatcagatg 350
atcgggaact acatgtggga cccaccacc aacaagtcct ttgacattgg 400
cgtcaacaaa gacagcctaa tgcctctctg gtggaatgga tcagaacctc 450
tgtgggtcac tctgaccaag gccaaaagga aggtctacat gtactactgg 500
ccaggctgtg aggttgagat tctgggtgtc agaccacct actgcctaga 550
atataaaaat gtcccaacgg atatcaattt tgccaatgca gtcagcgatg 600
ctcttgactc cttcaagagt ggccgggccc acctggcagc catataccat 650
gagcgcattg acgtggaagg ccaccactac gggcctgcat ctccgcagag 700
gaaagatgcc ctcaaggctg tagacactgt cctgaagtac atgaccaagt 750
ggatccagga gcggggcctg caggaccgcc tgaacgtcat tattttctcg 800
gatcacggaa tgaccgacat tttctggatg gacaaagtga ttgagctgaa 850

taagtacatc agcctgaatg acctgcagca agtgaaggac cgcgggcctg 900
 ttgtgagcct ttggccggcc cctgggaaac actctgagat atataacaaa 950
 ctgagcacag tggaacacat gactgtctac gagaaagaag ccatcccaag 1000
 caggttctat tacaagaaag gaaagtttgt ctctcctttg acttttagtg 1050
 ctgatgaagg ctggttcata actgagaatc gagagatgct tccgttttgg 1100
 atgaacagca ccggcaggcg ggaaggttgg cagcgtggat ggcacggcta 1150
 cgacaacgag ctcatggaca tgcggggcat cttcctggcc ttcggacctg 1200
 atttcaaatc caacttcaga gctgctccta tcaggtcggt ggacgtctac 1250
 aatgtcatgt gcaatgtggt gggcatcacc ccgctgcca acaacggatc 1300
 ctggtccagg gtgatgtgca tgctgaaggg ccgcgccggc actgccccgc 1350
 ctgtctggcc cagccactgt gccctggcac tgattcttct cttcctgctt 1400
 gcataactga tcatattgct tgtctcagaa aaaaacacca tcagcaaagt 1450
 gggcctccaa agccagatga ttttcatttt atgtgtgaat aatagcttca 1500
 ttaacacaat caagaccatg cacattgtaa atacattatt cttggataat 1550
 tctatacata aaagttccta cttgttaaa 1579

<210> 9

<211> 440

<212> PRT

<213> Homo Sapien

<400> 9

Met	Ala	Val	Lys	Leu	Gly	Thr	Leu	Leu	Leu	Ala	Leu	Ala	Leu	Gly
1				5					10					15
Leu	Ala	Gln	Pro	Ala	Ser	Ala	Arg	Arg	Lys	Leu	Leu	Val	Phe	Leu
				20					25					30
Leu	Asp	Gly	Phe	Arg	Ser	Asp	Tyr	Ile	Ser	Asp	Glu	Ala	Leu	Glu
				35					40					45
Ser	Leu	Pro	Gly	Phe	Lys	Glu	Ile	Val	Ser	Arg	Gly	Val	Lys	Val
				50					55					60
Asp	Tyr	Leu	Thr	Pro	Asp	Phe	Pro	Ser	Leu	Ser	Tyr	Pro	Asn	Tyr
				65					70					75
Tyr	Thr	Leu	Met	Thr	Gly	Arg	His	Cys	Glu	Val	His	Gln	Met	Ile
				80					85					90
Gly	Asn	Tyr	Met	Trp	Asp	Pro	Thr	Thr	Asn	Lys	Ser	Phe	Asp	Ile
				95					100					105
Gly	Val	Asn	Lys	Asp	Ser	Leu	Met	Pro	Leu	Trp	Trp	Asn	Gly	Ser

110
 115
 120
 125
 130
 135
 140
 145
 150
 155
 160
 165
 170
 175
 180
 185
 190
 195
 200
 205
 210
 215
 220
 225
 230
 235
 240
 245
 250
 255
 260
 265
 270
 275
 280
 285
 290
 295
 300
 305
 310
 315
 320
 325
 330
 335
 340
 345
 350
 355
 360
 365
 370
 375
 380
 385
 390
 395
 400
 405

Glu	Pro	Leu	Trp	Val	Thr	Leu	Thr	Lys	Ala	Lys	Arg	Lys	Val	Tyr
				125					130					135
Met	Tyr	Tyr	Trp	Pro	Gly	Cys	Glu	Val	Glu	Ile	Leu	Gly	Val	Arg
				140					145					150
Pro	Thr	Tyr	Cys	Leu	Glu	Tyr	Lys	Asn	Val	Pro	Thr	Asp	Ile	Asn
				155					160					165
Phe	Ala	Asn	Ala	Val	Ser	Asp	Ala	Leu	Asp	Ser	Phe	Lys	Ser	Gly
				170					175					180
Arg	Ala	Asp	Leu	Ala	Ala	Ile	Tyr	His	Glu	Arg	Ile	Asp	Val	Glu
				185					190					195
Gly	His	His	Tyr	Gly	Pro	Ala	Ser	Pro	Gln	Arg	Lys	Asp	Ala	Leu
				200					205					210
Lys	Ala	Val	Asp	Thr	Val	Leu	Lys	Tyr	Met	Thr	Lys	Trp	Ile	Gln
				215					220					225
Glu	Arg	Gly	Leu	Gln	Asp	Arg	Leu	Asn	Val	Ile	Ile	Phe	Ser	Asp
				230					235					240
His	Gly	Met	Thr	Asp	Ile	Phe	Trp	Met	Asp	Lys	Val	Ile	Glu	Leu
				245					250					255
Asn	Lys	Tyr	Ile	Ser	Leu	Asn	Asp	Leu	Gln	Gln	Val	Lys	Asp	Arg
				260					265					270
Gly	Pro	Val	Val	Ser	Leu	Trp	Pro	Ala	Pro	Gly	Lys	His	Ser	Glu
				275					280					285
Ile	Tyr	Asn	Lys	Leu	Ser	Thr	Val	Glu	His	Met	Thr	Val	Tyr	Glu
				290					295					300
Lys	Glu	Ala	Ile	Pro	Ser	Arg	Phe	Tyr	Tyr	Lys	Lys	Gly	Lys	Phe
				305					310					315
Val	Ser	Pro	Leu	Thr	Leu	Val	Ala	Asp	Glu	Gly	Trp	Phe	Ile	Thr
				320					325					330
Glu	Asn	Arg	Glu	Met	Leu	Pro	Phe	Trp	Met	Asn	Ser	Thr	Gly	Arg
				335					340					345
Arg	Glu	Gly	Trp	Gln	Arg	Gly	Trp	His	Gly	Tyr	Asp	Asn	Glu	Leu
				350					355					360
Met	Asp	Met	Arg	Gly	Ile	Phe	Leu	Ala	Phe	Gly	Pro	Asp	Phe	Lys
				365					370					375
Ser	Asn	Phe	Arg	Ala	Ala	Pro	Ile	Arg	Ser	Val	Asp	Val	Tyr	Asn
				380					385					390
Val	Met	Cys	Asn	Val	Val	Gly	Ile	Thr	Pro	Leu	Pro	Asn	Asn	Gly
				395					400					405

Ser	Trp	Ser	Arg	Val	Met	Cys	Met	Leu	Lys	Gly	Arg	Ala	Gly	Thr
				410					415					420
Ala	Pro	Pro	Val	Trp	Pro	Ser	His	Cys	Ala	Leu	Ala	Leu	Ile	Leu
				425					430					435
Leu	Phe	Leu	Leu	Ala										
				440										

<210> 10
 <211> 1047
 <212> DNA
 <213> Homo Sapien

<400> 10
 gccagggtgtg caggccgctc caagcccagc ctgccccgct gccgccacca 50
 tgacgctcct ccccggcctc ctgtttctga cctggctgca cacatgcctg 100
 gccaccatg acccctcct cagggggcac cccacagtc acggtacccc 150
 aactgctac tcggctgagg aactgccct cggccaggcc ccccccacacc 200
 tgctggctcg aggtgccaag tgggggcagg ctttgctgt agccctgggtg 250
 tccagcctgg aggcagcaag ccacaggggg aggcacgaga ggccctcagc 300
 tacgacctag tgcccgggtgc tgcggccgga ggaggtgttg gaggcagaca 350
 cccaccagcg ctccatctca ccctggagat accgtgtgga cacggatgag 400
 gaccgctatc cacagaagct ggccttcgcc gagtgctgt gcagaggctg 450
 tatcgatgca cggacggggc gcgagacagc tgcgctcaac tccgtgcggc 500
 tgctccagag cctgctgggtg ctgcgcgcgc ggccctgctc ccgcgacggc 550
 tcggggctcc ccacacctgg ggcctttgcc ttccacaccg agttcatcca 600
 cgtccccgtc ggctgcacct gcgtgctgcc ccgttcagtg tgaccgccga 650
 ggccgtgggg cccctagact ggacacgtgt gctccccaga gggcaccccc 700
 tatttatgtg tatttattgt tatttatatg cctcccccaa cactaccctt 750
 ggggtctggg cattccccgt gtctggagga cagcccccca ctgttctcct 800
 catctccagc ctcagtagtt gggggtagaa ggagctcagc acctcttcca 850
 gcccttaaag ctgcagaaaa ggtgtcacac ggctgcctgt accttggctc 900
 cctgtcctgc tcccggcttc cttacccta tcaactggcct caggccccgc 950
 aggctgcctc ttcccaacct ccttgggaagt acccctgttt cttaaacaat 1000
 tatttaagtg tacgtgtatt attaaactga tgaacacatc cccaaaa 1047

<210> 11

<211> 197
 <212> PRT
 <213> Homo Sapien

<400> 11

Met	Thr	Leu	Leu	Pro	Gly	Leu	Leu	Phe	Leu	Thr	Trp	Leu	His	Thr
1				5					10					15
Cys	Leu	Ala	His	His	Asp	Pro	Ser	Leu	Arg	Gly	His	Pro	His	Ser
				20					25					30
His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
				35					40					45
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
				50					55					60
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
				65					70					75
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
				80					85					90
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
				95					100					105
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
				110					115					120
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
				125					130					135
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
				140					145					150
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
				155					160					165
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
				170					175					180
Glu	Phe	Ile	His	Val	Pro	Val	Gly	Cys	Thr	Cys	Val	Leu	Pro	Arg
				185					190					195

Ser Val

<210> 12
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 12
 atccacagaa gctggccttc gccg 24

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 13
gggacgtgga tgaactcggg gtgg 24

<210> 14
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 14
tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

<210> 15
<211> 660
<212> DNA
<213> Homo Sapien

<400> 15
cggccagggc gccgacagcc cgacctcacc aggagaacat gcagctcggc 50
actgggctcc tgctggccgc cgtcctgagc ctgcagctgg ctgcagccga 100
agccatatgg tgtcaccagt gcacgggctt cggagggtgc tcccatggat 150
ccagatgcct gagggactcc acccactgtg tcaccactgc caccggggtc 200
ctcagcaaca ccgaggattt gcctctgggc accaagatgt gccacatagg 250
ctgccccgat atccccagcc tgggcctggg cccctacgta tccatcgctt 300
gctgccagac cagcctctgc aaccatgact gacggctgcc ctctccagg 350
cccccgagc ctcagcccc acagccccc cagcctggcg ccagggtca 400
cggccgcccc tccctcgaga ctggccagcc cacctctccc ggcctctgca 450
gccaccgtcc agcaccgctt gtcctagga agtcctgcgt ggagtcttgc 500
ctcaatctgc tgccgtccaa gcctggggcc catcgtgcct gccgcccctt 550
cagggtcccga cctccccaca ataaaatgtg attggatcgt gtggtacaaa 600
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 650
aaaaaaaaa 660

<210> 16
<211> 97

<212> PRT
<213> Homo Sapien

<400> 16

Met Gln Leu Gly Thr Gly Leu Leu Leu Ala Ala Val Leu Ser Leu
1 5 10 15

Gln Leu Ala Ala Ala Glu Ala Ile Trp Cys His Gln Cys Thr Gly
20 25 30

Phe Gly Gly Cys Ser His Gly Ser Arg Cys Leu Arg Asp Ser Thr
35 40 45

His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60

Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
65 70 75

Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln
80 85 90

Thr Ser Leu Cys Asn His Asp
95

<210> 17
<211> 2570
<212> DNA
<213> Homo Sapien

<400> 17

ccaggaccag ggcgcaccgg ctcagcctct cacttgctcag aggccgggga 50
agagaagcaa agcgcaacgg tgtgggtccaa gccgggggctt ctgcttcgcc 100
tctaggacat acacggggacc ccctaacttc agtcccccaa acgcgcaccc 150
tcgaagtctt gaactccage cccgcacatc cacgcgcggc acaggcgcgg 200
caggcggcag gtcccggccg aaggcgatgc gcgcaggggg tcgggcagct 250
gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300
attcagagtc gcgggctgcg ccctgggcag aggccgccct cgctccacgc 350
aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400
gctgggcgcc gcgctgctct gcggccacgg agcctttctgc cgccgcgtgg 450
tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500
atggcctact tccatgaact gtccagccga gtgagctttc aggaggcacg 550
cctggcttgt gagagtgagg gaggagtcct cctcagcctt gagaatgaag 600
cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaacccggg 650
acagggattt ctgatgggtga tttctggata gggcttttga ggaatggaga 700

tgggcaaaca tctggtgcct gccagatct ctaccagtgg tctgatggaa 750
 gcaattccca gtaccgaaac tggtagacag atgaaccttc ctgcggaagt 800
 gaaaagtgtg ttgtgatgta tcaccaacca actgccaatc ctggccttgg 850
 gggtccttac ctttaccagt ggaatgatga caggtgtaac atgaagcaca 900
 attatatattg caagtatgaa ccagagatta atccaacagc ccctgtagaa 950
 aagccttatc ttacaaatca accaggagac acccatcaga atgtgggtgt 1000
 tactgaagca ggtataatc ccaatctaatt ttatgttggt ataccaacaa 1050
 taccctgct cttactgata ctgggtgctt ttggaacctg ttgtttccag 1100
 atgctgcata aaagtaaagg aagaacaaaa actagtccaa accagtctac 1150
 actgtggatt tcaaagagta ccagaaaaga aagtggcatg gaagtataat 1200
 aactcattga cttgggtcca gaattttgta attctggatc tgtataagga 1250
 atggcatcag aacaatagct tggaatggct tgaaatcaca aaggatctgc 1300
 aagatgaact gtaagctccc ccttgaggca aatattaaag taatttttat 1350
 atgtctatta ttctatttaa agaatatgct gtgctaataa tggagtgaga 1400
 catgcttatt ttgctaaagg atgcacccaa acttcaaact tcaagcaaatt 1450
 gaaatggaca atgcagataa agttgttatt aacacgtcgg gagtatgtgt 1500
 gttagaagca attcctttta tttctttcac ctttcataag ttgttatcta 1550
 gtcaatgtaa tgtatattgt attgaaattt acagtgtgca aaagtatttt 1600
 acctttgcat aagtgtttga taaaaatgaa ctgttctaatt atttattttt 1650
 atggcatctc atttttcaat acatgctctt ttgattaaag aaacttatta 1700
 ctgttgctca ctgaattcac acacacacaa atatagtacc atagaaaaag 1750
 tttgttttct cgaaataatt catctttcag cttctctgct tttgggtcaat 1800
 gtctaggaaa tctcttcaga aataagaagc tatttcatta agtgtgatatt 1850
 aaacctctc aaacatttta cttagaggca aggattgtct aatttcaatt 1900
 gtgcaagaca tgtgccttat aattattttt agcttaaaat taaacagatt 1950
 ttgtaataat gtaactttgt taataggtgc ataaacacta atgcagtcaa 2000
 tttgaacaaa agaagtgaca tacacaatat aaatcatatg tcttcacacg 2050
 ttgcctatat aatgagaagc agctctctga gggttctgaa atcaatgtgg 2100
 tccctctctt gccactaaa caaagatggg tgttcggggg ttgggattga 2150

cactggaggc agatagttgc aaagtttagtc taaggtttcc ctagctgtat 2200
 ttagcctctg actatattag tatacaaaga ggtcatgtgg ttgagaccag 2250
 gtgaatagtc actatcagtg tggagacaag cacagcacac agacatttta 2300
 ggaaggaaag gaactacgaa atcgtgtgaa aatgggttgg aacccatcag 2350
 tgatcgcata ttcattgatg agggtttgct tgagatagaa aatggtggct 2400
 cctttctgtc ttatctccta gtttcttcaa tgcttacgcc ttgttcttct 2450
 caagagaaaag ttgtaactct ctggctcttca tatgtccctg tgctcctttt 2500
 aaccaaataa agagttcttg tttctggggg aaaaaaaaaa aaaaaaaaaa 2550
 aaaaaaaaaa aaaaaaaaaa 2570

<210> 18
 <211> 273
 <212> PRT
 <213> Homo Sapien

<400> 18
 Met Ser Arg Val Val Ser Leu Leu Leu Gly Ala Ala Leu Leu Cys
 1 5 10 15
 Gly His Gly Ala Phe Cys Arg Arg Val Val Ser Gly Gln Lys Val
 20 25 30
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
 35 40 45
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
 50 55 60
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
 65 70 75
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
 80 85 90
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
 95 100 105
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
 110 115 120
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
 125 130 135
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
 140 145 150
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
 155 160 165
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

	170		175		180
Glu Pro Glu Ile	Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr	Leu		
	185		190		195
Thr Asn Gln Pro	Gly Asp Thr His Gln	Asn Val Val Val Thr	Glu		
	200		205		210
Ala Gly Ile Ile	Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr	Ile		
	215		220		225
Pro Leu Leu Leu	Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys	Phe		
	230		235		240
Gln Met Leu His	Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro	Asn		
	245		250		255
Gln Ser Thr Leu	Trp Ile Ser Lys Ser	Thr Arg Lys Glu Ser	Gly		
	260		265		270

Met Glu Val

<210> 19
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
 caccaaccaa ctgccaatcc tggc 24

<210> 20
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 accacattct gatgggtgtc tcctgg 26

<210> 21
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 gggtcctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
 <211> 3824

<212> DNA
<213> Homo Sapien

<400> 22

ggagaatgga gagagcagtg agagtggagt ccggggtcct ggtcgggggtg 50
gtctgtctgc tcctggcatg ccctgccaca gccactgggc ccgaagttgc 100
tcagcctgaa gtagacacca ccctgggtcg tgtgcgaggc cggcaggtgg 150
gcgtgaaggg cacagaccgc cttgtgaatg tctttctggg cattccattt 200
gcccagccgc cactggggccc tgaccgggtc tcagccccac acccagcaca 250
gccctgggag ggtgtgcggg atgccagcac tgcgccccca atgtgcctac 300
aagacgtgga gagcatgaac agcagcagat ttgtcctcaa cggaaaacag 350
cagatcttct ccgtttcaga ggactgcctg gtcctcaacg tctatagccc 400
agctgaggtc cccgcagggt ccggtaggcc ggtcatggta tgggtccatg 450
gaggcgctct gataactggc gctgccacct cctacgatgg atcagctctg 500
gctgcctatg gggatgtggt cgtggttaca gtccagtacc gccttgggggt 550
ccttggcttc ttcagcactg gagatgagca tgcacctggc aaccagggct 600
tcctagatgt ggtagctgct ttgcgctggg tgcaagaaaa catcgcccc 650
ttcgggggtg acctcaactg tgtcactgtc tttgggtggat ctgccgggtg 700
gagcatcatc tctggcctgg tcctgtcccc agtggctgca gggctgttcc 750
acagagccat cacacagagt ggggtcatca ccaccccagg gatcatcgac 800
tctcaccctt ggcccctagc tcagaaaatc gcaaacacct tggcctgcag 850
ctccagctcc ccggctgaga tgggtgcagt ccttcagcag aaagaaggag 900
aagagctggg ccttagcaag aagctgaaaa atactatcta tcctctcacc 950
gttgatggca ctgtcttccc caaaagcccc aaggaactcc tgaaggagaa 1000
gcccttcac tctgtgccct tcctcatggg tgtcaacaac catgagttca 1050
gctggctcat ccccaggggc tgggggtctcc tggatacaat ggagcagatg 1100
agccgggagg acatgctggc catctcaaca cccgtcttga ccagtctgga 1150
tgtgccccct gagatgatgc ccaccgtcat agatgaatac ctaggaagca 1200
actcggacgc acaagccaaa tgccaggcgt tccaggaatt catgggtgac 1250
gtattcatca atgttcccac cgtcagtttt tcaagatacc ttcgagattc 1300
tggaagccct gtctttttct atgagttcca gcatcgacct agttcttttg 1350

agccctcgct tgctctccct gccgcctctg cctgggctcc cactttggca 2850
 gcacttgagg agcccttcaa cccgccgctg cactgtagga gcccctttct 2900
 gggctggcca aggccggagc cagctccctc agcttgcggg gaggtgcgga 2950
 gggagagggg cgggcaggaa ccggggctgc gcgcagcgct tgcgggccag 3000
 agtgagttcc ggggtgggcgt gggctcggcg gggcccccact cagagcagct 3050
 ggccggcccc aggcagtgag ggccttagca cctggggccag cagctgctgt 3100
 gctcgatttc tcgctgggcc ttagctgcct ccccgcgggg cagggtcgg 3150
 gacctgcagc cctccatgcc tgaccctccc cccacccccc gtgggctcct 3200
 gtgcggccgg agcctcccca aggagcgccg cccctgctc cacagcgccc 3250
 agtcccatcg accaccaag ggctgaggag tgcgggtgca cagcgcgga 3300
 ctggcaggca gctccacctg ctgccccagt gctggatcca ctgggtgaag 3350
 ccagctgggc tcctgagtct ggtggggact tggagaacct ttatgtctag 3400
 ctaagggatt gtaaatacac cgatgggcac tctgtatcta gctcaaggtt 3450
 tgtaaacaca ccaatcagca ccctgtgtct agctcagtgt ttgtgaatgc 3500
 accaatccac actctgtatc tggctactct ggtggggact tggagaacct 3550
 ttgtgtccac actctgtatc tagctaactct agtggggatg tggagaacct 3600
 ttgtgtctag ctgaggatc gtaaacgcac caatcagcac cctgtcaaaa 3650
 cagaccactt gactctctgt aaaatggacc aatcagcagg atgtgggtgg 3700
 ggcgagacaa gagaataaaa gcaggctgcc tgagccagca gtgacaacc 3750
 ccctcgggtc ccctcccacg ccgtggaagc tttgttcttt cgctctttgc 3800
 aataaatctt gctactgccc aaaa 3824

<210> 23

<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

Met	Glu	Arg	Ala	Val	Arg	Val	Glu	Ser	Gly	Val	Leu	Val	Gly	Val
1				5					10				15	

Val	Cys	Leu	Leu	Leu	Ala	Cys	Pro	Ala	Thr	Ala	Thr	Gly	Pro	Glu
				20					25				30	

Val	Ala	Gln	Pro	Glu	Val	Asp	Thr	Thr	Leu	Gly	Arg	Val	Arg	Gly
				35					40				45	

Arg	Gln	Val	Gly	Val	Lys	Gly	Thr	Asp	Arg	Leu	Val	Asn	Val	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

				50						55					60
Leu	Gly	Ile	Pro	Phe	Ala	Gln	Pro	Pro	Leu	Gly	Pro	Asp	Arg	Phe	
				65					70					75	
Ser	Ala	Pro	His	Pro	Ala	Gln	Pro	Trp	Glu	Gly	Val	Arg	Asp	Ala	
				80					85					90	
Ser	Thr	Ala	Pro	Pro	Met	Cys	Leu	Gln	Asp	Val	Glu	Ser	Met	Asn	
				95					100					105	
Ser	Ser	Arg	Phe	Val	Leu	Asn	Gly	Lys	Gln	Gln	Ile	Phe	Ser	Val	
				110					115					120	
Ser	Glu	Asp	Cys	Leu	Val	Leu	Asn	Val	Tyr	Ser	Pro	Ala	Glu	Val	
				125					130					135	
Pro	Ala	Gly	Ser	Gly	Arg	Pro	Val	Met	Val	Trp	Val	His	Gly	Gly	
				140					145					150	
Ala	Leu	Ile	Thr	Gly	Ala	Ala	Thr	Ser	Tyr	Asp	Gly	Ser	Ala	Leu	
				155					160					165	
Ala	Ala	Tyr	Gly	Asp	Val	Val	Val	Val	Thr	Val	Gln	Tyr	Arg	Leu	
				170					175					180	
Gly	Val	Leu	Gly	Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ala	Pro	Gly	
				185					190					195	
Asn	Gln	Gly	Phe	Leu	Asp	Val	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln	
				200					205					210	
Glu	Asn	Ile	Ala	Pro	Phe	Gly	Gly	Asp	Leu	Asn	Cys	Val	Thr	Val	
				215					220					225	
Phe	Gly	Gly	Ser	Ala	Gly	Gly	Ser	Ile	Ile	Ser	Gly	Leu	Val	Leu	
				230					235					240	
Ser	Pro	Val	Ala	Ala	Gly	Leu	Phe	His	Arg	Ala	Ile	Thr	Gln	Ser	
				245					250					255	
Gly	Val	Ile	Thr	Thr	Pro	Gly	Ile	Ile	Asp	Ser	His	Pro	Trp	Pro	
				260					265					270	
Leu	Ala	Gln	Lys	Ile	Ala	Asn	Thr	Leu	Ala	Cys	Ser	Ser	Ser	Ser	
				275					280					285	
Pro	Ala	Glu	Met	Val	Gln	Cys	Leu	Gln	Gln	Lys	Glu	Gly	Glu	Glu	
				290					295					300	
Leu	Val	Leu	Ser	Lys	Lys	Leu	Lys	Asn	Thr	Ile	Tyr	Pro	Leu	Thr	
				305					310					315	
Val	Asp	Gly	Thr	Val	Phe	Pro	Lys	Ser	Pro	Lys	Glu	Leu	Leu	Lys	
				320					325					330	
Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn	
				335					340					345	

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	350	355	360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	365	370	375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	380	385	390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	395	400	405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	410	415	420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	425	430	435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	440	445	450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	455	460	465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	470	475	480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	485	490	495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	500	505	510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	515	520	525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	530	535	540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	545	550	555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	560	565	570

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaag gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg ggttgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctccccag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

<400> 28
catggagcct cttgcagctt acccgctaaa atgttccggg cccagagcaa 50
aggtatttgc agttttgctg tctatagttc tatgcacagt aacgctattt 100
cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcctt 150
tgaagtgaag gatgcaaaag gaagaactgt ttctctggaa aagtataaag 200
gcaaagtttc actagttgta aacgtggcca gtgactgcca actcacagac 250
agaaattact tagggctgaa ggaactgcac aaagagtttg gaccatccca 300
cttcagcgtg ttggcttttc cctgcaatca gtttggagaa tcggagcccc 350
gccaagcaa ggaagtagaa tcttttgcaa gaaaaaacta cggagtaact 400
ttcccatct tccacaagat taagattcta ggatctgaag gagaacctgc 450
atttagattt cttgttgatt cttcaaagaa ggaaccaagg tggaattttt 500

ggaagtatct tgtcaaccct gaggggtcaag ttgtgaagtt ctggaggcca 550
 gaggagccca ttgaagtcac caggcctgac atagcagctc tggtagaca 600
 agtgatcata aaaaagaaag aggatctatg agaatgccat tgcgtttcta 650
 atagaacaga gaaatgtctc catgaggggtt tgggtctcatt ttaaactttt 700
 ttttttttga gacagtgtct cactctgtca cccaggctgg agtgcagtag 750
 tgcgtttcta gctcattgca acctctgcct ttttaaacad gctattaaat 800
 gtggcaatga aggatttttt tttaatgtta tcttgctatt aagtggtaat 850
 gaatgttccc aggatgagga tgttacccaa agcaaaaatc aagagtagcc 900
 aaagaatcaa catgaaatat attactact tcctctgacc atactaaaga 950
 attcagaata cacagtgacc aatgtgcctc aatatcttat tgttcaactt 1000
 gacattttct aggactgtac ttgatgaaaa tgccaacaca ctagaccact 1050
 ctttggattc aagagcactg tgtatgactg aaattttctgg aataactgta 1100
 aatggttatg ttaatggaat aaaacacaaa tgttgaaaaa tgtaaaatat 1150
 atatacatag attcaaatec ttatatatgt atgcttgttt tgtgtacagg 1200
 attttgtttt ttctttttta gtacagggtc ctagtgtttt actataactg 1250
 tcactatgta tgtaactgac atatataaat agtcatttat aaatgaccgt 1300
 attataacat ttgaaaaagt cttcatcaaa aaaaaaaaaa aa 1342

<210> 29
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 29
 Met Glu Pro Leu Ala Ala Tyr Pro Leu Lys Cys Ser Gly Pro Arg
 1 5 10 15
 Ala Lys Val Phe Ala Val Leu Leu Ser Ile Val Leu Cys Thr Val
 20 25 30
 Thr Leu Phe Leu Leu Gln Leu Lys Phe Leu Lys Pro Lys Ile Asn
 35 40 45
 Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val
 50 55 60
 Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val
 65 70 75
 Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys
 80 85 90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala
				95					100					105
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
				110					115					120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
				125					130					135
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
				140					145					150
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
				155					160					165
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe
				170					175					180
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala
				185					190					195
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu	
				200					205					

<210> 30

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 30

atcctccaac atggagcctc ttgc 24

<210> 31

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 31

gtatcttgtc aaccctgagg 20

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 32

taaccagagc tgctatgtca ggcc 24

<210> 33

<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
aggcaaagtt tcactagttg taaacgtggc cagtgactgc caactcacag 50

<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

<400> 34
tgtcgcctgg ccctcgccat gcagaccccg cgagcgtccc ctccccgcc 50
ggccctcctg cttctgctgc tgctactggg gggcgccac ggctctttc 100
ctgaggagcc gccgccgctt agcgtggccc ccagggacta cctgaaccac 150
tatcccggtg ttgtgggcag cgggcccga cgctgaccc ccgcagaagg 200
tgctgacgac ctcaacatcc agcgagtcct gcgggtcaac aggacgctgt 250
tcattgggga cagggacaac ctctaccgag tagagctgga gccccccacg 300
tccacggagc tgcggtacca gaggaagctg acctggagat ctaaccccag 350
cgacataaac gtgtgtcgga tgaagggcaa acaggagggc gagtgtcgaa 400
acttcgtaaa ggtgctgctc cttcgggacg agtccacgct ctttgtgtgc 450
ggttccaacg ccttcaaccc ggtgtgcgcc aactacagca tagacaccct 500
gcagcccgtc ggagacaaca tcagcggtat ggcccgtgc ccgtacgacc 550
ccaagcacgc caatggtgcc ctcttctctg acgggatgct cttcacagct 600
actggtaccg acttcctagc cattgatgct gtcattacc gcagcctcgg 650
ggacaggccc acctgcgca ccgtgaaaca tgactccaag tggttcaaag 700
agccttactt tgtccatgcg gtggagtggg gcagccatgt ctacttcttc 750
ttccgggaga ttgcgatgga gtttaactac ctggagaagg tgggtggtgc 800
ccgcgtggcc cgagtgtgca agaacgacgt gggaggctcc ccccgctgc 850
tggaagaagca gtggacgtcc ttctgaagg cgcggctcaa ctgctctgta 900
cccggagact cccatttcta cttcaacgtg ctgcaggctg tcacgggcgt 950
ggtcagcctc gggggccggc ccgtggtcct ggccgttttt tccacgcca 1000
gcaacagcat ccctggctcg gctgtctgcg cctttgacct gacacaggtg 1050

gcagctgtgt ttgaaggccg cttccgagag cagaagtccc ccgagtccat 1100
ctggacgccg gtgccggagg atcaggtgcc tcgaccccg cccgggtgct 1150
gcgcagcccc cgggatgcag tacaatgcct ccagcgcctt gccggatgac 1200
atcctcaact ttgtcaagac ccaccctctg atggacgagg cgggtgccctc 1250
gctggggccat gcgccctgga tcctgcggac cctgatgagg caccagctga 1300
ctcgagtggc tgtggacgtg ggagccggcc cctggggcaa ccagaccgtt 1350
gtcttcctgg gttctgaggg ggggacggtc ctcaagttcc tcgtccggcc 1400
caatgccagc acctcaggga cgtctgggct cagtgtcttc ctggaggagt 1450
ttgagaccta ccggccggac aggtgtggac ggcccggcgg tggcgagaca 1500
gggcagcggc tgctgagctt ggagctggac gcagcttcgg ggggcctgct 1550
ggctgccttc ccccgctgcg tgggtccagt gcctgtggct cgctgccagc 1600
agtactcggg gtgtatgaag aactgtatcg gcagtcagga cccctactgc 1650
gggtggggccc ccgacggctc ctgcatcttc ctacgccgg gcaccagagc 1700
cgcttttgag caggacgtgt ccggggccag cacctcaggc ttaggggact 1750
gcacaggact cctgcggggc agcctctccg aggaccgcgc ggggctggtg 1800
tcggtgaacc tgctggtaac gtcgtcgggt gcggccttcg tgggtgggagc 1850
cgtggtgtcc ggcttcagcg tgggctggtt cgtgggcctc cgtgagcggc 1900
gggagctggc ccggcgcaag gacaaggagg ccatacctggc gcacggggcg 1950
ggcgaggcgg tgctgagcgt cagccgcctg ggcgagcgca gggcgaggc 2000
tcccgggggc cggggcgagg gcggtggcgg tggcgccggg gttcccccg 2050
aggccctgct ggcgcccctg atgcagaacg gctggggcaa ggccacgctg 2100
ctgcagggcg ggccccacga cctggactcg gggctgctgc ccacgcccga 2150
gcagacgccg ctgccgcaga agcgcctgcc cactccgcac ccgcaccccc 2200
acgccttggg cccccgcgc tgggaccacg gccaccccct gctcccggcc 2250
tccgcttcat cctccctcct gctgctggcg ccgcgccggg cccccgagca 2300
gcccccgcg cctggggagc cgacccccga cgccgcctc tatgctgcc 2350
ggcccggccg cgctccac ggcgacttcc cgctacccc ccacgccagc 2400
ccggaccgcc ggcgggtggt gtccgcgccc acgggcccct tggaccagc 2450
ctcagccgcc gatggcctcc cgcgccctg gagcccgccc ccgacgggca 2500

CCDS: CCDS000000.1 (Homo sapiens)

gcctgaggag gccactgggc ccccaagccc ctccggccgc caccctgcgc 2550
cgcaccaca cgttcaacag cggcgaggcc cggcctgggg accgccaccg 2600
cggctgccac gcccggccgg gcacagactt ggcccacctc ctcccctatg 2650
ggggggcgga caggactgcg ccccccgctg cctaggccgg gggccccccg 2700
atgccttggc agtgccagcc acgggaacca ggagcgagag acggtgccag 2750
aacgccgggg cccggggcaa ctccgagtgg gtgctcaagt cccccccgcg 2800
accacccgc ggagtggggg gcccctccg ccacaaggaa gcacaaccag 2850
ctcgccctcc ccctaccggg ggccgcagga cgctgagacg gtttgggggt 2900
gggtgggcgg gaggactttg ctatggattt gaggttgacc ttatgcgcgt 2950
aggttttggt ttttttttgc agttttggtt tcttttgccg ttttctaacc 3000
aattgcacaa ctccgttctc ggggtggcgg caggcagggg aggcttggac 3050
gccggtgggg aatggggggc cacagctgca gacctagcc ctccccacc 3100
cctggaaagg tccctcccca acccaggccc ctggcgtgtg tgggtgtgcg 3150
tgctgtgcg tgccgtgttc gtgtgcaagg ggccggggag gtgggcgtgt 3200
gtgtgcgtgc cagcgaaggc tgctgtgggc gtgtgtgtca agtgggccac 3250
gcgtgcaggg tgtgtgtcca cgagcgacga tcgtggtggc ccagcggcc 3300
tgggcgttgg ctgagccgac gctggggctt ccagaaggcc cgggggtctc 3350
cgaggtgccg gttaggagtt tgaaccccc ccactctgca gaggaagcg 3400
gggacaatgc cggggtttca ggcaggagac acgaggaggg cctgcccgga 3450
agtcacatcg gcagcagctg tctaaagggc ttgggggcct ggggggcggc 3500
gaaggtgggt ggggcccctc tgtaaatacg gcccagggt ggtgagagag 3550
tcccatgcca ccgtcccctc tgtgacctcc ccctatgac ctccagctga 3600
ccatgcatgc cacgtggctg gctgggtcct ctgccctctt tggagtttgc 3650
ctccccagc ccctcccca tcaataaaac tctgtttaca accaaaaaaa 3700
aaaaaaaaa aaaaaaaaaa a 3721

<210> 35
<211> 888
<212> PRT
<213> Homo Sapien

<400> 35
Met Gln Thr Pro Arg Ala Ser Pro Pro Arg Pro Ala Leu Leu Leu
1 5 10 15

Leu	Leu	Leu	Leu	Leu	Gly	Gly	Ala	His	Gly	Leu	Phe	Pro	Glu	Glu	20	25	30
Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu	245	250	255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe	290	295	300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly			

305
 310
 315
 320
 325
 330
 335
 340
 345
 350
 355
 360
 365
 370
 375
 380
 385
 390
 395
 400
 405
 410
 415
 420
 425
 430
 435
 440
 445
 450
 455
 460
 465
 470
 475
 480
 485
 490
 495
 500
 505
 510
 515
 520
 525
 530
 535
 540
 545
 550
 555
 560
 565
 570
 575
 580
 585
 590
 595
 600

Gly	Arg	Pro	Val	Val	Leu	Ala	Val	Phe	Ser	Thr	Pro	Ser	Asn	Ser
				320					325					330
Ile	Pro	Gly	Ser	Ala	Val	Cys	Ala	Phe	Asp	Leu	Thr	Gln	Val	Ala
				335					340					345
Ala	Val	Phe	Glu	Gly	Arg	Phe	Arg	Glu	Gln	Lys	Ser	Pro	Glu	Ser
				350					355					360
Ile	Trp	Thr	Pro	Val	Pro	Glu	Asp	Gln	Val	Pro	Arg	Pro	Arg	Pro
				365					370					375
Gly	Cys	Cys	Ala	Ala	Pro	Gly	Met	Gln	Tyr	Asn	Ala	Ser	Ser	Ala
				380					385					390
Leu	Pro	Asp	Asp	Ile	Leu	Asn	Phe	Val	Lys	Thr	His	Pro	Leu	Met
				395					400					405
Asp	Glu	Ala	Val	Pro	Ser	Leu	Gly	His	Ala	Pro	Trp	Ile	Leu	Arg
				410					415					420
Thr	Leu	Met	Arg	His	Gln	Leu	Thr	Arg	Val	Ala	Val	Asp	Val	Gly
				425					430					435
Ala	Gly	Pro	Trp	Gly	Asn	Gln	Thr	Val	Val	Phe	Leu	Gly	Ser	Glu
				440					445					450
Ala	Gly	Thr	Val	Leu	Lys	Phe	Leu	Val	Arg	Pro	Asn	Ala	Ser	Thr
				455					460					465
Ser	Gly	Thr	Ser	Gly	Leu	Ser	Val	Phe	Leu	Glu	Glu	Phe	Glu	Thr
				470					475					480
Tyr	Arg	Pro	Asp	Arg	Cys	Gly	Arg	Pro	Gly	Gly	Gly	Glu	Thr	Gly
				485					490					495
Gln	Arg	Leu	Leu	Ser	Leu	Glu	Leu	Asp	Ala	Ala	Ser	Gly	Gly	Leu
				500					505					510
Leu	Ala	Ala	Phe	Pro	Arg	Cys	Val	Val	Arg	Val	Pro	Val	Ala	Arg
				515					520					525
Cys	Gln	Gln	Tyr	Ser	Gly	Cys	Met	Lys	Asn	Cys	Ile	Gly	Ser	Gln
				530					535					540
Asp	Pro	Tyr	Cys	Gly	Trp	Ala	Pro	Asp	Gly	Ser	Cys	Ile	Phe	Leu
				545					550					555
Ser	Pro	Gly	Thr	Arg	Ala	Ala	Phe	Glu	Gln	Asp	Val	Ser	Gly	Ala
				560					565					570
Ser	Thr	Ser	Gly	Leu	Gly	Asp	Cys	Thr	Gly	Leu	Leu	Arg	Ala	Ser
				575					580					585
Leu	Ser	Glu	Asp	Arg	Ala	Gly	Leu	Val	Ser	Val	Asn	Leu	Leu	Val
				590					595					600

Thr	Ser	Ser	Val	Ala	Ala	Phe	Val	Val	Gly	Ala	Val	Val	Ser	Gly	605	610	615
Phe	Ser	Val	Gly	Trp	Phe	Val	Gly	Leu	Arg	Glu	Arg	Arg	Glu	Leu	620	625	630
Ala	Arg	Arg	Lys	Asp	Lys	Glu	Ala	Ile	Leu	Ala	His	Gly	Ala	Gly	635	640	645
Glu	Ala	Val	Leu	Ser	Val	Ser	Arg	Leu	Gly	Glu	Arg	Arg	Ala	Gln	650	655	660
Gly	Pro	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Gly	Val	665	670	675
Pro	Pro	Glu	Ala	Leu	Leu	Ala	Pro	Leu	Met	Gln	Asn	Gly	Trp	Ala	680	685	690
Lys	Ala	Thr	Leu	Leu	Gln	Gly	Gly	Pro	His	Asp	Leu	Asp	Ser	Gly	695	700	705
Leu	Leu	Pro	Thr	Pro	Glu	Gln	Thr	Pro	Leu	Pro	Gln	Lys	Arg	Leu	710	715	720
Pro	Thr	Pro	His	Pro	His	Pro	His	Ala	Leu	Gly	Pro	Arg	Ala	Trp	725	730	735
Asp	His	Gly	His	Pro	Leu	Leu	Pro	Ala	Ser	Ala	Ser	Ser	Ser	Leu	740	745	750
Leu	Leu	Leu	Ala	Pro	Ala	Arg	Ala	Pro	Glu	Gln	Pro	Pro	Ala	Pro	755	760	765
Gly	Glu	Pro	Thr	Pro	Asp	Gly	Arg	Leu	Tyr	Ala	Ala	Arg	Pro	Gly	770	775	780
Arg	Ala	Ser	His	Gly	Asp	Phe	Pro	Leu	Thr	Pro	His	Ala	Ser	Pro	785	790	795
Asp	Arg	Arg	Arg	Val	Val	Ser	Ala	Pro	Thr	Gly	Pro	Leu	Asp	Pro	800	805	810
Ala	Ser	Ala	Ala	Asp	Gly	Leu	Pro	Arg	Pro	Trp	Ser	Pro	Pro	Pro	815	820	825
Thr	Gly	Ser	Leu	Arg	Arg	Pro	Leu	Gly	Pro	His	Ala	Pro	Pro	Ala	830	835	840
Ala	Thr	Leu	Arg	Arg	Thr	His	Thr	Phe	Asn	Ser	Gly	Glu	Ala	Arg	845	850	855
Pro	Gly	Asp	Arg	His	Arg	Gly	Cys	His	Ala	Arg	Pro	Gly	Thr	Asp	860	865	870
Leu	Ala	His	Leu	Leu	Pro	Tyr	Gly	Gly	Ala	Asp	Arg	Thr	Ala	Pro	875	880	885
Pro	Val	Pro															

<210> 36
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 36
gaggacctac cggccggaca g 21

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacagggca gcggtgctg agcttggagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

<400> 39
agcaactcaa gttcatcatt gtcctgagag agaggagcag cgcggttctc 50
ggccggggaca gcagaacgcc aggggaccct cacctgggag cgccgggggca 100
cgggctttga ttgtcctggg gtcgcggaga cccgcgcgcc tgccctgcac 150
gccggggcggc aacctttgca gtcgcgttgg ctgctgcgat cggccggcgg 200
gtccctgccg aaggctcggc tgcttctgtc cacctcttac acttcttcat 250
ttatcggtgg atcatttcga gagtccgtct tgtaaagtgt tggcactttg 300
ctactttatt gcttctttct ggcgacagtt ccagcactcg ccgagaccgg 350
cggagaaagg cagctgagcc cggagaagag cgaaatatgg ggacccgggc 400
taaaagcaga cgtcgtcctt cccgcccgtt atttctatat tcaggcagtg 450

gatacatcag ggaataaatt cacatcttct ccaggcgaaa aggtcttcca 500
ggtgaaagtc tcagcaccag aggagcaatt cactagagtt ggagtccagg 550
ttttagaccg aaaagatggg tccttcatag taagatacag aatgtatgca 600
agctacaaaa atctgaaggt ggaaattaaa ttccaagggc aacatgtggc 650
caaatcccca tatattttta aagggccggt ttacatgag aactgtgact 700
gtcctctgca agatagtgca gcctggctac gggagatgaa ctgccctgaa 750
accattgctc agattcagag agatctggca catttccctg ctgtggatcc 800
agaaaagatt gcagtagaaa tcccaaaaag atttggacag aggcagagcc 850
tatgtcacta caccttaaag gataacaagg tttatatcaa gactcatggt 900
gaacatgtag gttttagaat tttcatggat gccatactac tttctttgac 950
tagaaagggtg aagatgccag atgtggagct ctttggttaat ttgggagact 1000
ggcctttgga aaaaaagaaa tccaattcaa acatccatcc gatcttttcc 1050
tggtgtggct ccacagattc caaggatata gtgatgccta cgtacgattt 1100
gactgattct gttctggaaa ccatgggccg ggtaagtctg gatatgatgt 1150
ccgtgcaagc taacacgggt cctccctggg aaagcaaaaa ttccactgcc 1200
gtctggagag ggcgagacag ccgcaaagag agactcgagc tggttaaact 1250
cagtagaaaa caccagaac tcatagacgc tgctttcacc aactttttct 1300
tctttaaaca cgatgaaaac ctgtatggtc ccattgtgaa acatatttca 1350
ttttttgatt tcttcaagca taagtatcaa ataaatatcg atggcactgt 1400
agcagcttat cgcctgccat atttgctagt tggtgacagt gttgtgctga 1450
agcaggattc catctactat gaacattttt acaatgagct gcagccctgg 1500
aaacactaca ttccagttaa gagcaacctg agcgatctgc tagaaaaact 1550
taaattggcg aaagatcacg atgaagaggc caaaaagata gcaaaagcag 1600
gacaagaatt tgcaagaaat aatctcatgg gcgatgacat attctgttat 1650
tatttcaaac ttttccagga atatgccaat ttacaagtga gtgagcccca 1700
aatccgagag ggcataaaaa gggtagaacc acagactgag gacgacctct 1750
tcccttgtag ttgccatagg aaaaagacca aagatgaact ctgatatgca 1800
aaataacttc tattagaata atggtgctct gaagactctt cttaactaaa 1850
aagaagaatt tttttaagta ttaattccat ggacaatata aaatctgtgt 1900

gattgtttgc agtatgaaga cacattttcta cttatgcagt attctcatga 1950
 ctgtacttta aagtacattt ttagaatttt ataataaaac cacctttatt 2000
 ttaaaggaaa aaaa 2014

<210> 40
 <211> 502
 <212> PRT
 <213> Homo Sapien

<400> 40

Met	Phe	Gly	Thr	Leu	Leu	Leu	Tyr	Cys	Phe	Phe	Leu	Ala	Thr	Val
1				5					10					15
Pro	Ala	Leu	Ala	Glu	Thr	Gly	Gly	Glu	Arg	Gln	Leu	Ser	Pro	Glu
				20					25					30
Lys	Ser	Glu	Ile	Trp	Gly	Pro	Gly	Leu	Lys	Ala	Asp	Val	Val	Leu
				35					40					45
Pro	Ala	Arg	Tyr	Phe	Tyr	Ile	Gln	Ala	Val	Asp	Thr	Ser	Gly	Asn
				50					55					60
Lys	Phe	Thr	Ser	Ser	Pro	Gly	Glu	Lys	Val	Phe	Gln	Val	Lys	Val
				65					70					75
Ser	Ala	Pro	Glu	Glu	Gln	Phe	Thr	Arg	Val	Gly	Val	Gln	Val	Leu
				80					85					90
Asp	Arg	Lys	Asp	Gly	Ser	Phe	Ile	Val	Arg	Tyr	Arg	Met	Tyr	Ala
				95					100					105
Ser	Tyr	Lys	Asn	Leu	Lys	Val	Glu	Ile	Lys	Phe	Gln	Gly	Gln	His
				110					115					120
Val	Ala	Lys	Ser	Pro	Tyr	Ile	Leu	Lys	Gly	Pro	Val	Tyr	His	Glu
				125					130					135
Asn	Cys	Asp	Cys	Pro	Leu	Gln	Asp	Ser	Ala	Ala	Trp	Leu	Arg	Glu
				140					145					150
Met	Asn	Cys	Pro	Glu	Thr	Ile	Ala	Gln	Ile	Gln	Arg	Asp	Leu	Ala
				155					160					165
His	Phe	Pro	Ala	Val	Asp	Pro	Glu	Lys	Ile	Ala	Val	Glu	Ile	Pro
				170					175					180
Lys	Arg	Phe	Gly	Gln	Arg	Gln	Ser	Leu	Cys	His	Tyr	Thr	Leu	Lys
				185					190					195
Asp	Asn	Lys	Val	Tyr	Ile	Lys	Thr	His	Gly	Glu	His	Val	Gly	Phe
				200					205					210
Arg	Ile	Phe	Met	Asp	Ala	Ile	Leu	Leu	Ser	Leu	Thr	Arg	Lys	Val
				215					220					225
Lys	Met	Pro	Asp	Val	Glu	Leu	Phe	Val	Asn	Leu	Gly	Asp	Trp	Pro

	230		235		240
Leu Glu Lys Lys Lys Ser Asn Ser Asn Ile His Pro Ile Phe Ser	245		250		255
Trp Cys Gly Ser Thr Asp Ser Lys Asp Ile Val Met Pro Thr Tyr	260		265		270
Asp Leu Thr Asp Ser Val Leu Glu Thr Met Gly Arg Val Ser Leu	275		280		285
Asp Met Met Ser Val Gln Ala Asn Thr Gly Pro Pro Trp Glu Ser	290		295		300
Lys Asn Ser Thr Ala Val Trp Arg Gly Arg Asp Ser Arg Lys Glu	305		310		315
Arg Leu Glu Leu Val Lys Leu Ser Arg Lys His Pro Glu Leu Ile	320		325		330
Asp Ala Ala Phe Thr Asn Phe Phe Phe Phe Lys His Asp Glu Asn	335		340		345
Leu Tyr Gly Pro Ile Val Lys His Ile Ser Phe Phe Asp Phe Phe	350		355		360
Lys His Lys Tyr Gln Ile Asn Ile Asp Gly Thr Val Ala Ala Tyr	365		370		375
Arg Leu Pro Tyr Leu Leu Val Gly Asp Ser Val Val Leu Lys Gln	380		385		390
Asp Ser Ile Tyr Tyr Glu His Phe Tyr Asn Glu Leu Gln Pro Trp	395		400		405
Lys His Tyr Ile Pro Val Lys Ser Asn Leu Ser Asp Leu Leu Glu	410		415		420
Lys Leu Lys Trp Ala Lys Asp His Asp Glu Glu Ala Lys Lys Ile	425		430		435
Ala Lys Ala Gly Gln Glu Phe Ala Arg Asn Asn Leu Met Gly Asp	440		445		450
Asp Ile Phe Cys Tyr Tyr Phe Lys Leu Phe Gln Glu Tyr Ala Asn	455		460		465
Leu Gln Val Ser Glu Pro Gln Ile Arg Glu Gly Met Lys Arg Val	470		475		480
Glu Pro Gln Thr Glu Asp Asp Leu Phe Pro Cys Thr Cys His Arg	485		490		495
Lys Lys Thr Lys Asp Glu Leu	500				

<210> 41
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gaaggtggaa attaaattcc aagggc 26

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
gtgactgtcc tctgcaagat agtgcagcct ggctacggga 40

<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

<400> 44
cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtgggggtcg 50
gttccgcata cagcctagcg tgtccacgat gcggctgggc tccgggactt 100
tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150
cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200
agcggagccc ccagcgcgcc aaccctcggc tggagccagt tctaactgga 250
ccacgctgcc accacctctc ttcagtaaag ttgttattgt tctgatagat 300
gccttgagag atgattttgt gtttgggtca aagggtgtga aatttatgcc 350
ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400
aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450
gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500
actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550

tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600
gtggaatatg atggaacaac ctcatTTTTt gtgtcagatt acacagaggt 650
ggataataat gtcacgaggc atttggataa agtattaaaa agaggagatt 700
gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750
tcagggccca acagccccct gattgggcag aagctgagcg agatggacag 800
cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850
ctttacccaa tttgctggtt ctttgtggtg accatggcat gtctgaaaca 900
ggaagtcacg gggcctcctc caccgaggag gtgaatacac ctctgatttt 950
aatcagttct gcgtttgaaa ggaaaccggt tgatatccga catccaaagc 1000
acgtccaata gacggatgtg gctgcgacac tggcgatagc acttggctta 1050
ccgattccaa aagacagtgt agggagcctc ctattcccag ttgtggaagg 1100
aagaccaatg agagagcagt tgagattttt acatttgaat acagtgcagc 1150
ttagtaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200
tttgagcagt ttaaaatgtc agaaagattg catgggaact ggatcagact 1250
gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300
ttctcaggca gtacctggat gctctgaaga cgctgagctt gtccctgagt 1350
gcacaagtgg ccagttctc accctgctcc tgctcagcgt cccacaggca 1400
ctgcacagaa aggctgagct ggaagtccca ctgtcatctc ctgggttttc 1450
tctgctcttt tatttgggtga tcctggttct ttcggccgtt cacgtcattg 1500
tgtgcacctc agctgaaagt tcgtgctact tctgtggcct ctcgtggctg 1550
gcggcaggct gcctttcgtt taccagactc tggttgaaca cctgggtgtgt 1600
gccaagtgtc ggcagtgcc cttgacagggg gcctcaggga aggacgtgga 1650
gcagccttat cccaggcctc tgggtgtccc gacacagggtg ttcacatctg 1700
tgctgtcagg tcagatgcct cagttcttgg aaagctaggt tcctgcgact 1750
gttaccaagg tgattgtaaa gagctggcgg tcacagagga acaagcccc 1800
cagctgaggg ggtgtgtgaa tcggacagcc tcccagcaga ggtgtgggag 1850
ctgcagctga gggaagaaga gacaatcggc ctggacactc aggaggggtca 1900
aaaggagact tggtcgcacc actcatcctg ccacccccag aatgcatcct 1950
gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000

tcttagtcct tggcctcgga caccttcatt cgtagctgg ggagtgggtgg 2050
 tgaggcagtg aagaagaggg ggaatgggtcac actcagatcc acagagccca 2100
 ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150
 aaccctgcac agccctcatc ccctcttggc ttgagccgctc agaggccctg 2200
 tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250
 ttcctcggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300
 gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350
 tatgtagtta ccaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 45

<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile
1				5					10					15
Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala
			20						25					30
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
			35						40					45
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu
			50						55					60
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
			65						70					75
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
			80						85					90
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
			95						100					105
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
			110						115					120
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
			125						130					135
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
			140						145					150
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
			155						160					165
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
			170						175					180

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

cgggactttc gctacctggt gc 22

<210> 47

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 47

catcatattc cacaaaatgc tttggg 26

<210> 48

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

agccaggcag cacatcacag cgggaggagc tgtcccaggt ggcccagctc 50
agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100
ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200
ctcctgtcct catgagtgcct ttgaggctat cctgtctctg gacaccgggt 250
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300
gcggggccaga cgcaatcgaa cccggacgcg ctgccgccag actactcggc 350
ggtgcgcggc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400
acgccctccc caacctgagc caagcaccgc acccgccgac gctcagcggc 450
gccgagtgcct acgcctgtat cgggggtccac caggatgact gcgctatcgg 500
caggtcccga cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600
acctgccacc ggccctcctg caccaccgag ggcaccacca gccctggac 650
agccatcgac ctccagggct cctgctgtga ggggtacctc tgcaacagga 700
aatccatgac ccagcccttc accagtgcct cagccaccac ccctccccga 750
gcactacagg tcttggccct gctcctccca gtcctcctgc tgggtggggct 800
ctcagcatag accgcccctc caggatgctg gggacagggc tcacacacct 850
cattcttgct gcttcagccc ctatcacata gctcactgga aaatgatggt 900
aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
1				5					10					15
Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
				20					25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys	35	40	45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu	50	55	60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys	65	70	75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro	80	85	90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr	95	100	105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn	110	115	120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys	125	130	135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg	140	145	150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln	155	160	165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr	170	175	180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr	185	190	195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly	200	205	210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala	215	220	225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu	230	235	240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala					245	250	

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
 cccacgcgtc cgggacagat gaacttaaaa gagaagcttt agctgccaaa 50
 gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgtaac 150
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

ccttagttta tatacttatt attttatctt taagcatgct acttttactt 3150
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200
 ccttataatt gaaataaaaat tataatctgc ctgaaaatga ataaaaataa 3250
 aacattttga aatgtgaaaa aaaaaaaaaa aaaaaaaaaa 3288

<210> 52
 <211> 800
 <212> PRT
 <213> Homo Sapien

<400> 52
 Met Ala Val Arg Glu Leu Cys Phe Pro Arg Gln Arg Gln Val Leu
 1 5 10 15
 Phe Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe
 20 25 30
 Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
 35 40 45
 Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
 50 55 60
 Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
 65 70 75
 Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
 80 85 90
 Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
 95 100 105
 Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
 110 115 120
 Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
 125 130 135
 Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
 140 145 150
 Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
 155 160 165
 Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
 170 175 180
 Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
 185 190 195
 Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
 200 205 210
 Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
 215 220 225

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro	230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser	245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp	260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser	275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu	290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr	305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg	320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro	335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser	350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser	365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro	380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr	395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr	410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His	425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala	440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser	455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser	470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp	485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn	500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln			

	515	520	525
Ala Phe Glu Phe	Arg Val Gly Ala Thr	Asp Arg Gly Ser Pro	Ala
	530	535	540
Leu Ser Arg Glu	Ala Leu Val Arg Val	Leu Val Leu Asp Ala	Asn
	545	550	555
Asp Asn Ser Pro	Phe Val Leu Tyr Pro	Leu Gln Asn Gly Ser	Ala
	560	565	570
Pro Cys Thr Glu	Leu Val Pro Arg Ala	Ala Glu Pro Gly Tyr	Leu
	575	580	585
Val Thr Lys Val	Val Ala Val Asp Gly	Asp Ser Gly Gln Asn	Ala
	590	595	600
Trp Leu Ser Tyr	Gln Leu Leu Lys Ala	Thr Glu Pro Gly Leu	Phe
	605	610	615
Gly Val Trp Ala	His Asn Gly Glu Val	Arg Thr Ala Arg Leu	Leu
	620	625	630
Ser Glu Arg Asp	Ala Ala Lys His Arg	Leu Val Val Leu Val	Lys
	635	640	645
Asp Asn Gly Glu	Pro Pro Arg Ser Ala	Thr Ala Thr Leu His	Leu
	650	655	660
Leu Leu Val Asp	Gly Phe Ser Gln Pro	Tyr Leu Pro Leu Pro	Glu
	665	670	675
Ala Ala Pro Ala	Gln Ala Gln Ala Glu	Ala Asp Leu Leu Thr	Val
	680	685	690
Tyr Leu Val Val	Ala Leu Ala Ser Val	Ser Ser Leu Phe Leu	Leu
	695	700	705
Ser Val Leu Leu	Phe Val Ala Val Arg	Leu Cys Arg Arg Ser	Arg
	710	715	720
Ala Ala Ser Val	Gly Arg Cys Ser Val	Pro Glu Gly Pro Phe	Pro
	725	730	735
Gly His Leu Val	Asp Val Arg Gly Ala	Glu Thr Leu Ser Gln	Ser
	740	745	750
Tyr Gln Tyr Glu	Val Cys Leu Thr Gly	Gly Pro Gly Thr Ser	Glu
	755	760	765
Phe Lys Phe Leu	Lys Pro Val Ile Ser	Asp Ile Gln Ala Gln	Gly
	770	775	780
Pro Gly Arg Lys	Gly Glu Glu Asn Ser	Thr Phe Arg Asn Ser	Phe
	785	790	795
Gly Phe Asn Ile	Gln		
	800		

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatcacag ggctctttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
gaatgaatac ctccgaagcc gctttgttct ccagatgtga atagctccac 50
tataccagcc tcgtcttctt tccgggggac aacgtggggtc agggcacaga 100
gagatattta atgtcaccct cttgggggctt tcatgggact ccctctgcca 150
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcgga tgttctctc accctccccg cccccggcgc 300
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttgctg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaaca 450
cgctgcagcg cctggggggcc cgtgtggcct cggtggacat gggtcctcag 500
cagctgccccg atggtcagag tcttccaata cctcccgtca tcctggccga 550
actggggagc gatcccacga aaggcaccgt gtgcttctac ggccacttgg 600
acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga cccctatgtg 650
ctgacggagg tagacgggaa actttatgga cgaggagcga ccgacaacaa 700
aggccctgtc ttggcttgga tcaatgctgt gagcgccctc agagccctgg 750
agcaagatct tcctgtgaat atcaaattca tcattgaggg gatggaagag 800
gctggctctg ttgccctgga ggaacttgtg gaaaaagaaa aggaccgatt 850
cttctctggt gtggactaca ttgtaatttc agataacctg tggatcagcc 900
aaaggaagcc agcaatcact tatggaaccc gggggaacag ctacttcatg 950
gtggaggtga aatgcagaga ccaggathtt cactcaggaa cctttggtgg 1000
catccttcat gaaccaatgg ctgatctggt tgctcttctc ggtagcctgg 1050
tagactcgtc tggtcataat ctgggtccctg gaatctatga tgaagtgggt 1100
cctcttacag aagaggaaat aaatacatac aaagccatcc atctagacct 1150
agaagaatac cggaatagca gccgggttga gaaatttctg ttcgatacta 1200
aggaggagat tctaattcac ctctggaggt acccatctct ttctattcat 1250
gggatcgagg gcgcgtttga tgagcctgga actaaaacag tcatacctgg 1300
ccgagttata ggaaaatttt caatccgtct agtccctcac atgaatgtgt 1350
ctgcggtgga aaaacaggtg acacgacatc ttgaagatgt gttctccaaa 1400
agaaatagtt ccaacaagat gggtgtttcc atgactctag gactacaccc 1450
gtggattgca aatattgatg acaccagta tctcgcagca aaaagagcga 1500
tcagaacagt gtttggaaca gaaccagata tgatccggga tggatccacc 1550
attccaattg ccaaaatggt ccaggagatc gtccacaaga gcgtgggtgct 1600
aattccgctg ggagctgttg atgatggaga acattcgcag aatgagaaaa 1650
tcaacaggtg gaactacata gagggaaacca aattatttgc tgcccttttc 1700
ttagagatgg ccagctcca ttaatcaca gaaccttcta gtctgatctg 1750
atccactgac agattcacct cccccacatc cctagacagg gatggaatgt 1800

aaatatccag agaatttggg tctagtatag tacattttcc cttccattta 1850
 aaatgtcttg ggatatctgg atcagtaata aaatatttca aaggcacaga 1900
 tgttggaaat ggtttaaggt cccccactgc acaccttcct caagtcatag 1950
 ctgcttgacag caacttgatt tcccccaagtc ctgtgcaata gccccaggat 2000
 tggattcctt ccaacctttt agcatatctc caaccttgca atttgattgg 2050
 cataatcact ccggtttgct ttctaggtcc tcaagtgtc gtgacacata 2100
 atcattccat ccaatgatcg cctttgcttt accactcttt ccttttatct 2150
 tattaataaa aatgttggtc tccaccactg nctcccaaaa aaaaaaaaaa 2200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57
 <211> 507
 <212> PRT
 <213> Homo Sapien

<400> 57
 Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val
 1 5 10 15
 Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
 20 25 30
 Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
 35 40 45
 Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
 50 55 60
 Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
 65 70 75
 Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
 80 85 90
 Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
 95 100 105
 Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
 110 115 120
 Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
 125 130 135
 Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
 140 145 150
 Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
 155 160 165
 Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

	170		175		180
Arg Ala Leu Glu	Gln Asp Leu Pro Val	Asn Ile Lys Phe Ile	Ile		
	185		190		195
Glu Gly Met Glu	Glu Ala Gly Ser Val	Ala Leu Glu Glu Leu	Val		
	200		205		210
Glu Lys Glu Lys	Asp Arg Phe Phe Ser	Gly Val Asp Tyr Ile	Val		
	215		220		225
Ile Ser Asp Asn	Leu Trp Ile Ser Gln	Arg Lys Pro Ala Ile	Thr		
	230		235		240
Tyr Gly Thr Arg	Gly Asn Ser Tyr Phe	Met Val Glu Val Lys	Cys		
	245		250		255
Arg Asp Gln Asp	Phe His Ser Gly Thr	Phe Gly Gly Ile Leu	His		
	260		265		270
Glu Pro Met Ala	Asp Leu Val Ala Leu	Leu Gly Ser Leu Val	Asp		
	275		280		285
Ser Ser Gly His	Ile Leu Val Pro Gly	Ile Tyr Asp Glu Val	Val		
	290		295		300
Pro Leu Thr Glu	Glu Glu Ile Asn Thr	Tyr Lys Ala Ile His	Leu		
	305		310		315
Asp Leu Glu Glu	Tyr Arg Asn Ser Ser	Arg Val Glu Lys Phe	Leu		
	320		325		330
Phe Asp Thr Lys	Glu Glu Ile Leu Met	His Leu Trp Arg Tyr	Pro		
	335		340		345
Ser Leu Ser Ile	His Gly Ile Glu Gly	Ala Phe Asp Glu Pro	Gly		
	350		355		360
Thr Lys Thr Val	Ile Pro Gly Arg Val	Ile Gly Lys Phe Ser	Ile		
	365		370		375
Arg Leu Val Pro	His Met Asn Val Ser	Ala Val Glu Lys Gln	Val		
	380		385		390
Thr Arg His Leu	Glu Asp Val Phe Ser	Lys Arg Asn Ser Ser	Asn		
	395		400		405
Lys Met Val Val	Ser Met Thr Leu Gly	Leu His Pro Trp Ile	Ala		
	410		415		420
Asn Ile Asp Asp	Thr Gln Tyr Leu Ala	Ala Lys Arg Ala Ile	Arg		
	425		430		435
Thr Val Phe Gly	Thr Glu Pro Asp Met	Ile Arg Asp Gly Ser	Thr		
	440		445		450
Ile Pro Ile Ala	Lys Met Phe Gln Glu	Ile Val His Lys Ser	Val		
	455		460		465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58
<211> 1470
<212> DNA
<213> Homo Sapien

<400> 58
ctcggctgga tttaagggtg ccgctagccg cctgggaatt taagggaccc 50
acactacctt cccgaagttg aaggcaagcg gtgattgttt gtagacggcg 100
ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaagc cgaagtgtgt aagctgctga gcacagagct 250
acaggcggaa ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400
ggactatagt gttcacgctg agcgcaaggg ctactgaga tatgccaagg 450
gtcagagtca gaccatggca aactgaaag gcctagtgc gaaggggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttggag gagtttgaag 600
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650
tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700
ggaaacttgg actggaaagg agatcacaga tggggaagag aaaacagaag 750
gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
ttgacccttg cctttgagcc ccaggaggg gaagggatca tggagagccc 900
tctaaagcct gcactctccc tgctccacag ctttcagggt gtgtttatga 950
gtgactccac ccaagcttgt agctgttctc tccatctaa cctcaggcaa 1000
gatcctgggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050
gaggtcctgc tcctagagat gaactctatc cagccctta attggcaggt 1100

gtatgtgctg acagtactga aagctttcct ctttaactga tcccaccccc 1150
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttggtct acttaagctc aatgtaaccc 1400
 agagcccacc atatagtttt atagggtgctc aactttctat atcgctatta 1450
 aacttttttc tttttttcta 1470

<210> 59

<211> 248

<212> PRT

<213> Homo Sapien

<400> 59

Met	Gly	Pro	Val	Arg	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Phe	Leu	Ala
1				5					10					15

Val	His	Glu	Ala	Trp	Ala	Gly	Met	Leu	Lys	Glu	Glu	Asp	Asp	Asp
			20						25					30

Thr	Glu	Arg	Leu	Pro	Ser	Lys	Cys	Glu	Val	Cys	Lys	Leu	Leu	Ser
			35						40					45

Thr	Glu	Leu	Gln	Ala	Glu	Leu	Ser	Arg	Thr	Gly	Arg	Ser	Arg	Glu
			50						55					60

Val	Leu	Glu	Leu	Gly	Gln	Val	Leu	Asp	Thr	Gly	Lys	Arg	Lys	Arg
			65						70					75

His	Val	Pro	Tyr	Ser	Val	Ser	Glu	Thr	Arg	Leu	Glu	Glu	Ala	Leu
			80						85					90

Glu	Asn	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Tyr	Ser	Val	His	Ala	Glu
			95						100					105

Arg	Lys	Gly	Ser	Leu	Arg	Tyr	Ala	Lys	Gly	Gln	Ser	Gln	Thr	Met
			110						115					120

Ala	Thr	Leu	Lys	Gly	Leu	Val	Gln	Lys	Gly	Val	Lys	Val	Asp	Leu
			125						130					135

Gly	Ile	Pro	Leu	Glu	Leu	Trp	Asp	Glu	Pro	Ser	Val	Glu	Val	Thr
			140						145					150

Tyr	Leu	Lys	Lys	Gln	Cys	Glu	Thr	Met	Leu	Glu	Glu	Phe	Glu	Asp
			155						160					165

Ile	Val	Gly	Asp	Trp	Tyr	Phe	His	His	Gln	Glu	Gln	Pro	Leu	Gln
			170						175					180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccac gggttggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tgggtggcac 150
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttggacg 200
 aggacaccct cttttgccag ggccctgaag ttttctaccc agagttgggg 250
 aacattggct gcaagggtgt tcctgattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggcc gtggacggcg 350
 caacctatat cctgggtgatg gtggatccag atgcccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcg 450
 cgacctgaag aaagggaaga ttcagggccca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgctacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc cttcccaagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650
 aacctgaagc aagcaccag ttcattgacc agaactacca ggactcacca 700
 accctccagg ctcccagagg aagggccagc gagcccaagc acaaaaccag 750
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223
 <212> PRT
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62
 <211> 1321
 <212> DNA
 <213> Homo Sapien

<400> 62

gtcgacccac gcgtccgaag ctgctggagc cacgattcag tcccctggac 50

thtagataaa gaccctttct tgccagggtgc tgagacaacc acactatgag 100
 aggcactcca ggagacgctg atgggtggagg aagggccgctc tatcaatcaa 150
 tcaactgttgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
 agagggggatc ccatttatatt gggaatccag aatccagaaa tgtgtttgta 250
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ccttttctac 350
 cgtgccaaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccgga 400
 ctgggttcatt gcctcctcca agagagacca gcccatcatt ctgacttcag 450
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500
 actcagccta gaggtggcag cttgggtcttt gtcttaaagt ttctggttcc 550
 caatgtgttt tcgtctacat tttcttagtg tcattttcac gctgggtgctg 600
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
 agctgggtgg tataaggctg tcctctcaag ctgggtgctgt gtaggccaca 750
 aggcattctgc atgagtgact ttaagactca aagaccaaac actgagcttt 800
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900
 cctcttggga tgatatcatc cagtctttat atgttgccaa tatacctcat 950
 tgtgtgtaat agaacccttct tagcattaag accttgtaaa caaaaataat 1000
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgcgcg ttaccacga 1050
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100
 tcttgggatg atatcatcca gtctttatat gttgccata tacctcattg 1150
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 63
 <211> 134
 <212> PRT
 <213> Homo Sapien

 <400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	1	5	10	15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	20	25	30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	35	40	45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	50	55	60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	65	70	75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	80	85	90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	95	100	105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	110	115	120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	125	130			

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcgaggctgc accagcgcct ggcacccatga ggacgcctgg gcctctgccc 50
 gtgctgctgc tgctcctggc gggagccccc gccgcgcggc ccactccccc 100
 gacctgctac tcccgcacgc gggccctgag ccaggagatc acccgcgact 150
 tcaacctcct gcaggtctcg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtgttgga agtggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgcact acggtcctgc cagatcgtca gcgctaaggg aactgagacc 450
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggtat tcctaccag 600
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

tcatgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
 aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
 gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
 cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
 tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
 aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
 ctttcattga aaggatgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
 <211> 136
 <212> PRT
 <213> Homo Sapien

<400> 65
 Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Leu Ala
 1 5 10 15
 Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
 20 25 30
 Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
 35 40 45
 Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
 50 55 60
 Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
 65 70 75
 Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
 80 85 90
 Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
 95 100 105
 Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
 110 115 120
 Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
 125 130 135

Arg

<210> 66
 <211> 1893
 <212> DNA
 <213> Homo Sapien

<400> 66
 gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100
ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc ccctctcccg 150
ccccacaccc accctcctgg ctcttctgt ttttactcct ccttttcatt 200
cataacaaaa gctacagctc caggagccca gcgcgggct gtgaccaag 250
ccgagcgtgg aagaatgggg ttctcggga ccggcacttg gattctggtg 300
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350
atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400
ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700
taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800
ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagcctattht ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtcctttcaa 1700
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
 aaattttttg acccaaggggt tattagaaag tgctgaattt acagtagtta 1800
 acctttttaca agtgggttaaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaaa aaa 1893

<210> 67
 <211> 468
 <212> PRT
 <213> Homo Sapien

<400> 67
 Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
 1 5 10 15
 Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
 20 25 30
 Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln
 35 40 45
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro
 50 55 60
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu
 65 70 75
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu
 80 85 90
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val
 95 100 105
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr
 110 115 120
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro
 125 130 135
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp
 140 145 150
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg
 155 160 165
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu
 170 175 180

Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu	185	190	195
Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu	200	205	210
Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys	215	220	225
Ile Pro Glu Lys Val Thr Pro Met Ala Ala Ile Gln Asp Gly Leu	230	235	240
Ala Lys Gly Glu Asn Asp Glu Thr Val Ser Asn Thr Leu Thr Leu	245	250	255
Thr Asn Gly Leu Glu Arg Arg Thr Lys Thr Tyr Ser Glu Asp Asn	260	265	270
Phe Glu Glu Leu Gln Tyr Phe Pro Asn Phe Tyr Ala Leu Leu Lys	275	280	285
Ser Ile Asp Ser Glu Lys Glu Ala Lys Glu Lys Glu Thr Leu Ile	290	295	300
Thr Ile Met Lys Thr Leu Ile Asp Phe Val Lys Met Met Val Lys	305	310	315
Tyr Gly Thr Ile Ser Pro Glu Glu Gly Val Ser Tyr Leu Glu Asn	320	325	330
Leu Asp Glu Met Ile Ala Leu Gln Thr Lys Asn Lys Leu Glu Lys	335	340	345
Asn Ala Thr Asp Asn Ile Ser Lys Leu Phe Pro Ala Pro Ser Glu	350	355	360
Lys Ser His Glu Glu Thr Asp Ser Thr Lys Glu Glu Ala Ala Lys	365	370	375
Met Glu Lys Glu Tyr Gly Ser Leu Lys Asp Ser Thr Lys Asp Asp	380	385	390
Asn Ser Asn Pro Gly Gly Lys Thr Asp Glu Pro Lys Gly Lys Thr	395	400	405
Glu Ala Tyr Leu Glu Ala Ile Arg Lys Asn Ile Glu Trp Leu Lys	410	415	420
Lys His Asp Lys Lys Gly Asn Lys Glu Asp Tyr Asp Leu Ser Lys	425	430	435
Met Arg Asp Phe Ile Asn Lys Gln Ala Asp Ala Tyr Val Glu Lys	440	445	450
Gly Ile Leu Asp Lys Glu Glu Ala Glu Ala Ile Lys Arg Ile Tyr	455	460	465
Ser Ser Leu			

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggcgtt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgct cccctctacc tggagacttg actcccg 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
gttgctccgg cggcgctcgg ggagggagcc agcagcctag ggcctaggcc 50
cgggccacca tggcgctgcc tccaggccca gccgccctcc ggcacacact 100
gctgctcctg ccagcccttc tgagctcagg ttgggggggag ttggagccac 150
aatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
cacgccttca cctgccgggt ggcagggggg cctggcacc ccagattggc 250
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
gcccatcggg ccagcatga gctcaactgc tctctgcagg accccagaag 400
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgccca agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500
 ctggttgtcc tgtttgcctt ggtgcgtgcc aaccgcccgg ccaatgtcac 550
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700
 ggggtgtcacc agtgcgtcgc ttccagcccc agggccctcc cggcaccat 750
 ctctgatatc aagtgactcc aacaacctaa aactcaacaa cgtgcgcctg 800
 ccacgggaga acatgtccct ccggtccaac cttcagctca atgacctcac 850
 tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900
 acagccggcc agagcttctg gacccggagc ccggcggcct cctcaccagc 950
 caaggtttca tccgcctccc agtgctgggc tatactctatc gagtgtccag 1000
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050
 tctcttggcc tctggacacc ctcccattcc tccaaggcat cctctaccta 1100
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200
 tgtaaccgcg aggggcacag gtatcttttg caaggctacc agttggacgt 1250
 aagccctca tgctgactca ggggtggccc tgcatgtgat gactgggccc 1300
 ttccagaggg agctcttttg ccaggggtgt tcagatgtca tccagcatcc 1350
 aagtgtggca tggcctgctg tataccccac ccagtactc cacagcacct 1400
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450
 catggatttt cctccttccct atgctatgta gccttggttc ctcaggtaaa 1500
 atttaggacc ctgctagctg tgcagaacct aattgccctt tgcacagaaa 1550
 ccaaccctg acccagcggg accggccaag cacaaacgtc ctttttgctg 1600
 cacacgtctc tgcccttcac ttcttctctt ctgtccccac ctctcttgg 1650
 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700
 acttttctat tggcctgtgc catcgcccag tattagcaca agttagggag 1750
 gaagaggcag gcgatgagtc tagtagcacc caggacggct thtagctatg 1800
 catcattttc ctacggcggt agcactttaa gcacatcccc taggggaggg 1850
 ggtgagtgag gggcccagag ccctctttgt ggcttcccca cgtttggcct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggttga tggtttttct 1950
ctcagcatgt ctctccacc acgggacccc agccctgacc aacccatggt 2000
tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050
cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100
ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150
gattggaaat taatatagta cagaatatat ttttcccttg ttgagatctt 2200
cttttgtaat gtttttcatg ttactgccta gggcgggtgct gagcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
1 5 10 15
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcggcccct gggcccgagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggcccgc gcggggctgc ctggccggtg ctgttggggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200
 cgtgcggctg cactcgcacg acatcaaata cggatccggc agcggccagc 250
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300
 atccgcggcg gctcggaggg cgggtgcccg cgcgggtccc cgggtgcgctg 350
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400
 cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gagtgccttt 450
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggcctgctgt gcgcttccag catgtgggca 550
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
 gggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
 <211> 221
 <212> PRT
 <213> Homo Sapien

<400> 74
 Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
 1 5 10 15
 Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys
 20 25 30
 Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
 35 40 45
 Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
 50 55 60
 Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
 65 70 75
 Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly
 80 85 90
 Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
 95 100 105
 Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
 110 115 120
 Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
 125 130 135
 Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
 140 145 150
 Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
 155 160 165
 Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
 170 175 180
 Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
 185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
215 220

<210> 75
<211> 1049
<212> DNA
<213> Homo Sapien

<400> 75
gttgctatgt tgcccaggct ggtcttgaag tgccttgacc tcctaaagtg 50
ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100
ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
gctttgggaa ttccaaagta ctgagtggag agagggtgtt caggagccgt 300
agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
atgccatacc tcctgaaata tcaacccatg atgcaaacca ttggccaaaa 550
gtactgcatg gatcctgccg tgatecgtgg tgtcttgtcc aggaagtctc 600
ccggtgacaa aattctggtc aacatgggcg ataggactag catgggtgcag 650
gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcaggtttc 700
ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800
agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850
ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900
aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaattg 950
ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76
<211> 194
<212> PRT
<213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
1 5 10 15

Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
20 25 30

Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
35 40 45

Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
50 55 60

Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
65 70 75

Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
80 85 90

Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
95 100 105

Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
110 115 120

Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
125 130 135

Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
140 145 150

Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
155 160 165

Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
170 175 180

Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct actctatcag ctgctgtggt tgccaccatt ctcaggaccc 50

tgcgcatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100

gtctcagctg acattcgctg tcaactcctgc tacaagggtcc ctgtgctggg 150

ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200

caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250

ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350
gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400
ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
atccccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550
aaacactggt ccgagtgggc tcctcatcca tccttcccac ctcacaccct 600
tcactctcct ttttctgggt cccttcccac ttccttccag gacctccatt 650
ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700
cttgaggagg gattgggatc tgggcctgaa atggggcttc tgtgttgtcc 750
ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800
tccccaaacc caggctccca tatgtacccc atcccccata ctcacctctt 850
tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78
<211> 125
<212> PRT
<213> Homo Sapien

<400> 78
Met Lys Ala Leu Met Leu Leu Thr Leu Ser Val Leu Leu Cys Trp
1 5 10 15
Val Ser Ala Asp Ile Arg Cys His Ser Cys Tyr Lys Val Pro Val
20 25 30
Leu Gly Cys Val Asp Arg Gln Ser Cys Arg Leu Glu Pro Gly Gln
35 40 45
Gln Cys Leu Thr Thr His Ala Tyr Leu Gly Lys Met Trp Val Phe
50 55 60
Ser Asn Leu Arg Cys Gly Thr Pro Glu Glu Pro Cys Gln Glu Ala
65 70 75
Phe Asn Gln Thr Asn Arg Lys Leu Gly Leu Thr Tyr Asn Thr Thr
80 85 90
Cys Cys Asn Lys Asp Asn Cys Asn Ser Ala Gly Pro Arg Pro Thr
95 100 105
Pro Ala Leu Gly Leu Val Phe Leu Thr Ser Leu Ala Gly Leu Gly
110 115 120
Leu Trp Leu Leu His
125

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79

acggggccgca gcggcagtg cgtaggggtg gcgcacggat ccgttgccgc 50
tgcagctctg cagtcggggc gttccttcgc cgccgccagg ggtagcggtg 100
tagctgcgca gcgtcgcgcg cgctaccgca cccagggttcg gcccgtaggc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gccctgccct gggctggaac gaccctgaca gaatgttgct 300
gcgggatgta aaagctctta ccctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgaggg cacagctggg 400
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500
aatttgga aaactgtggt agctgtgaag gctatgagtc ctctgaagac 550
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggctttg 650
cctctttctc tgattattat tataagtggg cctcggcgga ttctgtaac 700
atgagtggat tgattaccat cgtggtactc cttgggatcg cctttgtagt 750
ctataagctg ttcttgagt acgggcagta ttctcctcca ccgtactctg 800
agtatcctcc attttcccac cgttaccaga gattcaccaa ctcagcagga 850
cctcctcccc caggctttaa gtctgagttc acaggaccac agaatactgg 900
ccatggtgca acttctgggt ttggcagtgc ttttacagga caacaaggat 950
atgaaaattc aggaccaggg ttctggacag gcttgggaac tgggtggaata 1000
ctaggatatt tgtttggcag caatagagcg gcaacaccct tctcagactc 1050
gtggtactac ccgtcctatc ctccctccta ccctggcacg tggaataggg 1100
cttactcacc cttcatgga ggctcgggca gctattcggg atgttcaaac 1150
tcagacacga aaaccagaac tgcatacagga tatggtggta ccaggagacg 1200
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250
tcatcacttt ctctttagaa aaaaagtact acctgttaac aattgggaaa 1300
aggggatatt caaaagttct gtggtgttat gtccagtgtg gctttttgta 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400
 gtatgtcagt gtaacatgca gatgtatatt gcagtttttg aaagtgatca 1450
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500
 aagaagcatt aagaatgaag gtgttggtact aatagaaact aagtacagaa 1550
 aatttcagtt ttaggtgggt gtagctgatg agttattacc tcatagagac 1600
 tataatattc tatttggtat tatattatth gatgtttgct gttcttcaaa 1650
 catttaaate aagcttttga ctaattatgc taatttgtga gttctgatca 1700
 cttttgagct ctgaagcttt gaatcattca gtgggtggaga tggccttctg 1750
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
 tttctttcgt tcataagagg taaagggtcaa atttttcaac aaaagtcttt 1900
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
 agtctgtttc aatcttaaaa agaataca 1977

<210> 80
 <211> 339
 <212> PRT
 <213> Homo Sapien

<400> 80
 Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu
 1 5 10 15
 Leu Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly
 20 25 30
 Trp Asn Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu
 35 40 45
 Thr Leu His Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro
 50 55 60
 Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser
 65 70 75
 Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly
 80 85 90
 Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr
 95 100 105
 Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly Tyr Glu Ser Ser
 110 115 120
 Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu Glu Tyr Asn
 125 130 135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	
				140					145					150	
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	
				155					160					165	
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	
				170					175					180	
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	
				185					190					195	
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	
				200					205					210	
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	
				215					220					225	
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	
				230					235					240	
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	
				245					250					255	
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	
				260					265					270	
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	
				275					280					285	
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	
				290					295					300	
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	
				305					310					315	
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	
				320					325					330	
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							
				335											